

REMARKS

INTRODUCTION

Claims 1-7 were previously pending and under consideration.

Claims 8-25 are withdrawn from consideration.

Claim 26 is added.

Claims 1-7 and 26 are now pending and under consideration.

Claims 1-7 are rejected.

Claims 1-6 are amended herein.

No new matter is being presented, and approval and entry are respectfully requested.

REJECTIONS UNDER 35 USC §§ 102 AND 103

In the Office Action, claims 1-4, 6, and 7 were rejected under 35 U.S.C. § 102 as anticipated by Setlak. Claim 5 was rejected as obvious over Setlak in view of Upton. These rejections are traversed and reconsideration is requested.

Amended claim 1 recites acquiring to-be-verified biometrics information (e.g. a fingerprint image to be verified). The acquired to-be-verified biometrics information is converted into a state to be acquired on a predetermined acquisition condition (e.g. an image with a different resolution or other characteristic). The predetermined acquisition condition is a same condition under which the previously registered biometric information was acquired (at a time of user registration, preamble). Using a fingerprint image system as an example, an acquired to-be-verified fingerprint image (to-be-verified biometrics information) would be converted to a resolution (predetermined acquisition condition) the same as a registration fingerprint image (biometrics information previously acquired during registration). Claim 1 further recites that the converted to-be-verified biometrics information is a source from which biometrics characteristic data is extracted.

A system provided with a converting section like the one in claim 1 can easily be

upgraded without requiring users to re-register their registered biometrics information, even if the biometric information sampling mode or sampling device is changed. Even if different fingerprint sensors manufactured by different vendors are mixed in a single system (or if they have different modes of operation), it becomes possible to modify a sampled fingerprint image (for example) to meet a specific sampling condition (predetermined acquisition condition) without causing any problems in fingerprint verification. In particular, fingerprints or other biometric information does not need to be re-registered. In the case of fingerprints, differently sampled/acquired fingerprint images become or stay interoperable.

The rejection compares the converting section of claim 1 to column 8, lines at 51-64 of Setlak. However, this portion of Setlak differs in function and effect from the converting section of claim 1. Setlak discusses a system for fingerprint detection and processing. A fingerprint sensor of a low-electric-field type has a gain controlling function. The rejection compares the biometrics inputting section of claim 1 to the "fingerprint sensor 30" of Setlak (see column 4, lines 25-51).

The biometric information converting section of claim 1 is distinguishable from Setlak. According to the cited portions of Setlak, and also Figure 8, Setlak's fingerprint sensor 30 includes: a binarizing filter 150 that converts a grayscale fingerprint image to a binarized fingerprint image; an impedance matrix 153 that provides dynamic image contrast enhancement; an edge smoothing filter 155 that improves the image; and spatial filters 152 spatially filter the fingerprint image.

The elements described in Setlak at, 8, lines to 51-64 are for image processing of the fingerprint image obtained by the fingerprint sensor 30. Fingerprint characteristics such as minutia are extracted from the processed fingerprint image. Therefore, the elements do not have a function of converting two-be-verified biometrics information into a state to be acquired on a predetermined condition, that condition being the same condition under which the previously registered biometrics information was obtained. The sensor 30 of Setlak is comparable to a biometrics information inputting section but not a converting unit that converts the product of a biometric inputting section.

Withdrawal of the rejection is respectfully requested.

Dependent claim 5 recites time series data, such as voice or signature data. The

biometrics converting section converts, as examples, voice-sampling cycles input from a microphone or signature-sampling cycles input from a pen tablet in such a manner that they are synchronized with specific sampling cycles. This can help to eliminate dependency of a sound input board or a pen tablet upon sampling cycles, so that interoperability can be obtained or maintained. It becomes possible, for example, to compare and verify different types of data input from different types of sound input boards with different sampling cycles. In contrast, Upton discusses only a fingerprint detector that utilizes skin resistance in fingerprint sampling. Conversion of time series data is not discussed or suggested.

New claim 26 recites a feature clarifying an advantage of an aspect of the invention. The prior art does not address a case where registered biometrics information is acquired under a state or condition (e.g. resolution) different than a state or condition (e.g. another resolution) under which to-be-verified biometrics information (captured at a time of authentication or identification) was acquired. In claim 26 the to-be-verified biometrics information is converted to a same state (e.g. resolution) as the biometrics information previously acquired at a time of user registration. This is not disclosed or suggested by the prior art.

DEPENDENT CLAIMS

The dependent claims are deemed patentable due at least to their dependence from allowable independent claims. These claims are also patentable due to their recitation of independently distinguishing features. For example, claim 2 recites that image data with a predetermined resolution is included in (i.e. a component of) said predetermined acquisition condition. This feature is not taught or suggested by the prior art. Withdrawal of the rejection of the dependent claims is respectfully requested.

CONCLUSION

There being no further outstanding objections or rejections, it is submitted that the application is in condition for allowance. An early action to that effect is courteously solicited.

Finally, if there are any formal matters remaining after this response, the Examiner is


requested to telephone the undersigned to attend to these matters.

If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 19-3935.


Respectfully submitted,

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